

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WILLIAM K. DENNIS and MASOOD MURTUZA

Appeal No. 1997-0123
Application 08/368,926¹

ON BRIEF

Before JERRY SMITH, FLEMING and RUGGIERO, Administrative Patent Judges.

RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 3, 5, 6, 8, 9, 11, 12, and 14. Claims 1 and 2 have

¹ Application for patent filed January 5, 1995.

been canceled. Claims 4, 7, 10, and 13 have been indicated by the

Examiner as containing allowable subject matter but are objected to as being dependent on a rejected claim².

The claimed invention relates to a packaged semiconductor chip with radial slots formed in an inner ring of contact lead support film and cross-slots formed in the corner members of an outer body of support film. Appellants state at page 4 of the specification that the slots permit expansion of the various portions of the support film and prevent breakage of the contact leads due to differences in the thermal coefficient of expansion between the semiconductor material and the support film.

Claim 3 is illustrative of the invention and reads as follows:

3. A packaged semiconductor chip comprising:

²Although Appellants have included claims 4, 7, 10, and 13 in the reproduction of the appealed claims in the Appendix to the Brief, these claims are not before us in this appeal.

a semiconductor chip;

a plurality of contact leads electrically connected to the semiconductor chip;

an inner ring of film surrounding the semiconductor chip and supporting a portion of the contact leads;

an outer body of film surrounding the inner ring of film and connected to the inner ring of film by four corner members of film material, the outer body of film supporting a further portion of the contact leads;
and

each of the corner members comprising at least one cross-slot extending inward from an edge of the corner member partway across the corner member such that stress on the contact leads resulting from the thermal expansion and contraction of the semiconductor chip, the inner ring of film material and the outer body of film material is reduced.

The Examiner relies on the following references³:

Nakamura et al. (Nakamura)	62-113458	May 25,
1987		
(Japanese Kokai) ⁴		
Suetake	5,336,927	Aug. 09,
1994		

Claims 3, 5, 6, 8, 9, 11, 12, and 14 stand finally

³ The Examiner additionally relies on a description of the admitted prior art at pages 2 and 3 of Appellants' specification.

⁴ A copy of the translation provided by the U. S. Patent and Trademark Office, April 1999, is included and relied upon for this decision.

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rejected under 35 U.S.C. § 103 as being unpatentable over Nakamura in view of the admitted prior art and further in view of Suetake.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Briefs⁵ and Answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejection advanced by the Examiner, and the evidence of obviousness relied upon by the Examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellants'

⁵ The Appeal Brief was filed May 23, 1996. In response to the Examiner's Answer dated June 26, 1996, a Reply Brief was filed August 26, 1996, which was acknowledged and entered by the Examiner without further comment on October 7, 1996.

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arguments set forth in the Briefs along with the Examiner's rationale in support of the rejections and arguments in rebuttal

set forth in the Examiner's Answer. It is our view, after consideration of the record before us, that the collective evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 3, 5, 6, 8, 9, 11, 12, and 14. Accordingly, we reverse.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837

F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1,

17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to

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modify the prior art or to combine prior art references to arrive

at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole

or knowledge generally available to one having ordinary skill in

the art. Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825

(1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.,

776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed.

Cir. 1984). These showings by the Examiner are an essential part

of complying with the burden of presenting a prima facie case of

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obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24
USPQ2d
1443, 1444 (Fed. Cir. 1992).

At the outset, we note that the relevant portion of
independent claims 3, 6, 9, and 12 recites:

... each of the corner members
comprising at least one cross-slot
extending inward from an edge of the
corner member partway across the
corner member...

As asserted in the statement of the grounds of rejection
(Answer, page 3), the Examiner seeks to modify the combined
teachings of Nakamura and the admitted prior art by relying on
Suetake to supply the missing teaching of a film material
corner member having the requisite cross-slot feature. In the
Examiner's view, the desire to prevent lead disconnections,
absorb mechanical stress, and increase yield by prevention of
tape scattering would
serve as motivating factors to the skilled artisan to modify
Nakamura and the admitted prior art with the teachings of
Suetake.

In response, Appellants assert that the Examiner has

failed to set forth a prima facie case of obviousness since proper motivation for one of ordinary skill to make the Examiner's proposed combination has not been established. In Appellants' view (Brief, page 5), the skilled artisan would not be motivated to employ the teachings of Suetake with Nakamura and the admitted prior art since Suetake's slot configuration is directed to a totally different problem, i.e., tape scrap minimization rather than strain relief.

Upon careful review of the applied prior art, we are in agreement with Appellants' stated position in the Brief. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F. 2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). It is our view that, while a showing of proper motivation does not require that a combination of prior art teachings be made for the same reason as Appellants to achieve the claimed invention, we can find no motivation for the skilled artisan to apply Suetake's cross slot tape configuration to the combined film carrier of

Nakamura and the admitted prior art. There is nothing in the disclosure of Nakamura or the admitted prior art to indicate that minimization of material waste, the problem addressed by Suetake, was ever a concern. It is our opinion that the only basis for applying Suetake's teachings to the combination of Nakamura and the admitted prior art comes from an improper attempt to reconstruct Appellants' invention in hindsight.

We note that, in the responsive arguments portion at page 7 of the Answer, the Examiner attempts to respond to Appellants' arguments concerning Suetake's lack of concern with a strain relief problem by making reference to Suetake's mention of the term "yield." The Examiner proceeds to supply a dictionary definition of the term "yield" as relating to the bending of an element under physical pressure. We are in agreement, however, with Appellants' arguments (Reply Brief, pages 2 and 3) that the Examiner's interpretation of Suetake's use of the term "yield" is in error. It is clear from our reading of Suetake's disclosure that the term "yield" is intended to relate to an amount of useful material resulting

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from a manufacturing operation and not to a bending under pressure as suggested by the Examiner.

Since we can find no basis in the applied prior art to combine their teachings in the manner proposed by the Examiner, we can not sustain the 35 U.S.C. § 103 rejection of independent claims 3, 6, 9, and 12, nor the rejection of claims 5, 8, 11, and 14 which depend therefrom. Accordingly, the decision of the Examiner rejecting claims 3, 5, 6, 8, 9, 11, 12, and 14 is reversed.

REVERSED

JERRY SMITH)	
Administrative Patent Judge)	
)	
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)	BOARD OF PATENT
MICHAEL R. FLEMING)	
Administrative Patent Judge)	APPEALS AND
)	
)	INTERFERENCES
)	

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